Before the

Federal Communications Commission

Washington, D.C. 20554

In the Matter of	)	
Accessible Emergency Information, and Apparatus Requirements for Emergency Information and Video Description: Implementation of the Twenty-First Century Communications and Video Accessibility Act of 2010	)	MB Docket No. 12-107

Comments of the Rehabilitation Engineering Research Center on Telecommunications Access and Consumer Groups

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Introduction

The Telecom RERC[1] (RERC-TA), the American Association of the Deaf-Blind, the National Association of the Deaf, and Telecommunications for the Deaf and Hard of Hearing, Inc. (collectively referred to as Consumer Groups) are offering these comments in response to the FCC's NPRM on Accessible Emergency Information, and Apparatus Requirements for Emergency Information and Video Description[2].

The RERC-TA is a joint project of the Technology Access Program at Gallaudet University and the Trace Center at the University of Wisconsin-Madison. It is funded by the U.S. Department of Education, National Institute on Disability and Rehabilitation Research, to carry out a program of research and development focused on technological solutions for universal access to telecommunications systems and products for people with disabilities. The Technology Access Program at Gallaudet University, which is one of the partners in the RERC-TA, also has been an active contributor to the Internet Protocol captioning proceedings as part of the implementation of the Twenty-First Century Communications and Video Accessibility Act (CVAA) with numerous filings in MB Docket 11-154.

[1] The contents of these comments were developed with funding from the National Institute on Disability and Rehabilitation Research, U.S. Department of Education, grant number H133E090001 (RERC on Telecommunications Access). However, those contents do not necessarily represent the policy of the Department of Education, and you should not assume endorsement by the Federal Government.

[2] Notice of Proposed Rulemaking: In the Matter of Accessible Emergency Information, and Apparatus Requirements for Emergency Information and Video Description: Implementation of the Twenty-First Century Communications and Video Accessibility Act of 2010. MB Docket 12-107. Released on 11/19/2012.

The NPRM and the VPAAC Second Report Overlook the Needs of People who are Both Blind or Visually Impaired and are Deaf or Hard of Hearing

Sections 202 and 203 of the CVAA have provisions to address the needs of people who are blind or visually impaired, as well as people who are deaf and hard of hearing, for video programming. In particular, the IP Captioning Report and Order adopted regulations governing the closed captioning capabilities of certain apparatus on which consumers view video programming[3]. The FCC also has been directed to promulgate regulations that address conveying emergency information to people who are blind or visually impaired, which are the subject of this NPRM[4]. The RERC-TA and Consumer Groups are concerned that the NPRM overlooks the intersection of people who are both blind or visually impaired and deaf or hard of hearing – it makes no mention of this important constituency. Moreover, the proposed rules would ensure that emergency information made available via video programming remains inaccessible to them, even though this constituency comprises people who are blind or visually impaired, who *happen to be deaf or hard of hearing.*

Although figures on TV usage are not available, the size of the population that is potentially affected by the omission of this constituency is disturbingly large: A review of demographic studies by Mississippi State University coupled with surveys on prevalence rates across the United States estimates that in 2005 there were a total of 1.134 million people who were to some degree blind or visually impaired, as well as deaf or hard of

[3] Report and Order in the Matter of Closed Captioning of Internet Protocol-Delivered Video Programming: Implementation of the Twenty-First Century Communications and Video Accessibility Act of 2010 ("IP Captioning Report and Order"), at 1. MB Docket 11-154. Released on 1/13/2012.
[4] NPRM at 2.

hearing. Another 290,000 people were expected to join the ranks of this constituency beyond 2010[5]. Given the CVAA's strong focus on both types of disabilities, the RERC-TA and Consumer Groups do not believe that it was the statute's intent to make emergency information via video programming accessible only to those people who are blind or visually impaired, but otherwise have normal hearing. A recent ex parte filing by National Public Radio, Inc. about the scope of the NPRM and the needs of people who are blind or visually impaired, as well as deaf or hard of hearing, indicates that the RERC-TA and Consumer Groups do not stand alone in their concern that a significant constituency is being left out[6].

Neither video crawls, nor secondary audio streams, are universally accessible to people who are blind or visually impaired, and who additionally are deaf or hard of hearing. The accessibility problems associated with video crawls, in particular, are very similar to the ones associated with subtitles for the deaf and hard of hearing (SDH) on removable media. In both cases, viewers are at the mercy of the content creators or the distributors as to the choice of font and color schemes, and are unable to adjust them to meet their own accessibility needs. The FCC recognized the problems with SDH in its IP Captioning Report and Order, stating that they do not meet the functional requirements necessary to accomplish the goals of the CVAA[7]. In the same order, the FCC went on to agree that user controls for manipulating closed captions according to the CEA-708

[5] William Sansing. Prevalence of Persons Aging with Dual Sensory Loss. Presentation given at the *Creating Roads to Independence for Persons Aging with Hearing & Vision Loss* conference, Atlanta, GA, 2/8-2/10/2006. Online: http://www.blind.msstate.edu/pahvl/presentations/conference2006/agenda.php

[6] Ex parte filing by National Public Radio, Inc. MB Docket 12-107, filed on 12/17/2012.

[7] IP Captioning Report and Order at 100.

standard must be supported in all devices[8]; presumably because such controls are the only way to meet the diverse needs of people who are deaf or hard of hearing with visual impairments.

It stands to reason that the same considerations also apply to emergency video crawls for people who are visually impaired and deaf or hard of hearing. If they cannot access audio information, but are capable of reading visual information with either the appropriate control over fonts and colors, or via text output on a refreshable Braille display, the information must be transmitted in such a way that access becomes possible. Whether such people are labeled as blind or visually impaired first, and deaf or hard of hearing second, or vice versa, is immaterial to these considerations.

Unfortunately, the VPAAC Second Report on Access to Emergency Information[9] did not fully consider the needs of people who are blind or visually impaired, and who are deaf or hard of hearing. It is not clear whether this constituency was even represented in the VPAAC Working Group on Emergency Information. In formulating their recommendations, members of this working group considered and discarded a number of alternatives; in particular the option of providing enlarged text[10]. The VPAAC working group discarded this option, because "it would not serve those who were blind,[11]" but in doing so, it merely traded one type of accessibility barrier for another one: instead of

[8] Id. at 100.
[9] Second Report of the Video Programming Accessibility Advisory Committee on the Twenty-First Century Communications and Video Accessibility Act of 2010: Access to Emergency Information. Online: http://vpaac.wikispaces.com/file/view/120409+VPAAC+Access+to+Emergency+Information+REPORT+AS+SUBMITTED+4-9-2012.pdf
[10] Id. at page 12.
[11] Id. at page 12.

leaving in place an accessibility barrier for people who are blind, it now leaves one for people who are blind or visually impaired, and who happen to be deaf or hard of hearing.

Proposed Solution: Secondary Audio Channel Plus Closed Captions

It is not clear why the VPAAC working group rejected enlarged text in favor of providing a secondary audio channel for transmitting emergency information, when these two options complement each other perfectly. In the same paragraph that discusses enlarged text, the VPAAC report notes the possibility of transmitting crawls as part of a caption text service[12]. It is precisely this option that could form the missing puzzle piece to making emergency information via video programming fully accessible across the spectrum of video programming consumers who are blind or visually impaired: transmit the same emergency information in both the secondary audio channel and in closed captions.

Conceptually, this idea would require a change to the proposed rule in §79.2 (b)(1)(iii)[13] to state that the visually provided emergency information must be made accessible via both a secondary audio channel *and closed captions*. In addition, a similar change to §79.2 (b)(1)(i) would be necessary to cover cases where news broadcasts are not captioned live, because they are not in the top 25 markets. The part of the IP Captioning Report and Order that addresses Section 203 of the CVAA already ensures that apparatus are capable of receiving and rendering these captions, and allow the consumer sufficient

[12] Id. at page 12.
[13] NPRM, Appendix A at page 26.

control over fonts and colors for maximum accessibility[14]. Thus, the captioning aspect of our proposal would impose no additional burden on apparatus manufacturers beyond what is already required starting in 2014.

Transmitting the emergency information in both a secondary audio stream and closed captions looks to be eminently achievable. If a video programming distributor has the means to alter the broadcast by inserting the audio information from an emergency alert, there is no technical reason why the captioning information cannot be similarly altered as part of the same workflow. In fact, as the visual crawl is generated from text, generating the captions with the same text can be automated without human intervention. Alternatively, if text-to-speech systems serve as the main vehicle for generating and delivering the information in the secondary audio stream from text, generating the captions from the same text is also possible.

Conclusion

In their current form, both the VPAAC Second Report and the NPRM overlook the needs of video programming consumers who are blind or visually impaired and additionally are deaf or hard of hearing. By simply requiring that emergency information be broadcast in both a secondary audio channel and as closed captions, the FCC could go a long way toward addressing these needs. Both forms of broadcasting emergency information are technically achievable. Moreover, our proposal integrates well with the FCC's IP Captioning Report and Order, which ensures that apparatus will already have the ability to handle the caption stream. The RERC-TA and Consumer Groups

[14] IP Captioning Report and Order at 92 and following.

respectfully request that the FCC consider addressing the needs of the entire spectrum of video programming consumers who are blind or vision impaired when it promulgates the new regulations for accessible emergency information. Finally, the RERC-TA and Consumer Groups would also like to register their concern that these proceedings do not cover IP-delivered video programming.

Respectfully submitted

/s/ Christian Vogler

Dated: December 18, 2012

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